WHAT IS CLAIMED IS:

1. An electron beam lithography system comprising:

exposure map creating means which, based on positional relations between meshes dividing a region to be rendered by an electron beam on the one hand and shots to be rendered by said electron beam on the other hand, creates an exposure map by calculating an area density from a shot area included in each of said meshes; and

proximity effect correcting means for correcting a level of exposure for each of said shots by referencing said exposure map so that each shot is exposed at the corrected level;

wherein said exposure map creating means includes judging means for judging whether or not each shot straddles a plurality of meshes.

2. An electron beam lithography system according to claim 1, wherein, based on positional relations between coordinates of two diagonally positioned edge points of each shot on the one hand and mesh boundaries on the other hand, said judging means judges whether the shot in question straddles said plurality of meshes.

3. An electron beam lithography system according to claim 1, wherein said exposure map creating means divides each shot straddling said plurality of meshes by boundaries of said meshes so that either area values or area densities

of divided shots included in each mesh are added to the mesh in question.

4. An electron beam lithography system according to claim 3, further comprising N × M memories for accommodating either area values or area densities of shots, N representing a maximum number of divided shots in a direction of one boundary of a given mesh, M denoting a maximum number of divided shots in a direction of another boundary of the mesh in question.

5. An electron beam lithography system according to claim 4, wherein, when either an area value or an area density of each shot is divided for a plurality of meshes in order to store the divided values or densities into said memories, either the divided shot area values or the divided shot area densities included in each mesh are set simultaneously to different addresses in different memories so that when data are to be retrieved from said memories, said data are read from the same address of all memories.

6. An electron beam lithography system according to claim 5, further comprising a function for adding up a plurality of data retrieved from the same address in a plurality of said memories.

7. An electron beam lithography system according to claim 4, further comprising N × M memories assigned the same addresses as those of N × M meshes constituting each of mesh groups dividing said region to be rendered by said

electron beam.

8. An electron beam lithography system according to claim 7, further comprising selecting means for selecting a desired memory as well as a desired address therein from among said $N \times M$ memories in accordance with the address of a given mesh.

9. An electron beam lithography system according to claim 8, wherein said selecting means selects the memory into which to store either the area value or the area density of the mesh in question at an address (m, n) on the basis of a remainder from a formula of n/N and a remainder from a formula of m/M, said selecting means further selecting said address based on a quotient of said formula of n/N and on a quotient of said formula of m/M.

10. An electron beam lithography system comprising:

exposure map creating means which, based on positional relations between meshes dividing a region to be rendered by an electron beam on the one hand and shots to be rendered by said electron beam on the other hand, creates an exposure map by calculating an area density from a shot area included in each of said meshes; and

proximity effect correcting means for correcting a level of exposure for each of said shots by referencing said exposure map so that each shot is exposed at the corrected level;

wherein said exposure map creating means includes

judging means for judging whether or not each shot straddles a plurality of meshes; and

wherein said exposure map is made of N × M memories for accommodating either area values or area densities of shots, N representing a maximum number of divided shots in a direction of one boundary of a given mesh, M denoting a maximum number of divided shots in a direction of another boundary of the mesh in question.